I Claim:

1.   A personal communication and electronic commerce system for use by participating users and participating merchants, the system comprising:

5   means for storing a participant ID for each of the participating users and a merchant ID for each of the participating merchants

           a cellular communication network that includes a plurality of geographically spaced base stations that each have a base station identity and are each capable of communication with a mobile exchange that is in communication

10   with a fixed communication network,

           a plurality of personal communication devices, each of the personal communication devices comprising: a unique digital code stored in memory that identifies the device; a display; a user interface for allowing an user to generate digital messages; a transmitter and receiver for wireless communication with the

15   cellular communication network so as to allow a digital message generated on the personal communication devices to be transmitted by placing a call through one of the base stations and memory for storing a digital value corresponding to a monetary value;

           means for correlating the unique digital code stored in memory of each

20   personal communication devices to a participant ID

           means for transmitting a digital value corresponding to a monetary value to the memory of the personal communication devices; and

           means for creating incentives for participating users to encourage desired participant actions.

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2. The system of Claim 1, further comprising means for determining the geographic location of any of the personal communication devices based upon the identity of the base station to which a digital geographic location query message is transmitted and displaying information concerning the geographic location of the personal communication device that transmitted the digital geographic location query message on the display of the personal communication device that transmitted the digital geographic location query message in response to the query transmitted from the personal communication device.

3. The system of claim 2, further comprising a merchant information database containing information pertaining to a plurality of participating merchants located within the geographic territory covered by the cellular communication network, each of the merchants having a merchant ID; and means for determining the merchant ID of all participating merchants located within a predetermined geographic proximity of each of the base stations and wherein the system can retrieve information pertaining to specific participating merchants from the merchant information database and transmit this information to participating users; and wherein merchant information is stored on a database that is accessible by merchants so that merchants can add, delete or alter information contained in their respective listings.

4. The system of Claim 1, wherein the means for creating incentives for participating users to encouraging desired participant actions comprises a computer implemented incentive program for encouraging certain participant actions, the program comprising:

a plurality of participants;

a participant ID associated with each participant;

a redemption rate associated with each participant ID;

a first reward program under which participants may earn points for certain actions;

a second reward program through which the redemption rate associated with a particular participant is adjusted in response to certain participant action.

5.   A cellular position location system for use in connection with a cellular communication network that includes a plurality of geographically spaced base stations that each have a base station identity and are each capable of communication with a mobile exchange that is in communication with a fixed communication network, the system comprising:

a plurality of personal communication devices, each of the personal communication devices comprising: a unique digital code stored in memory that identifies the device; a display; a user interface for allowing an user to generate a digital geographic location query message; a transmitter and receiver for wireless communication with the cellular communication network so as to allow a digital geographic location query message generated on the personal communication devices to be transmitted by placing a call through one of the base stations; and

means for determining the geographic location of any of the personal communication devices based upon the identity of the base station to which a digital geographic location query message is transmitted and displaying information concerning the geographic location of the personal communication device that transmitted the digital geographic location query message on the display of the personal communication device that transmitted the digital geographic location query message in response to the query transmitted from the personal communication device.

6.   The system of claim 5, wherein the user interface of the personal communication devices, provides the user with a sequence of generic menu choices that become progressively more specific so as to narrow the user's particular query

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and wherein the menu selections generate a digital geographic location query message that is stored in memory before transmission to a base station.

7. The system of claim 5, wherein the personal communication devices further comprise a range selector through which the user can adjust the geographic range to be queried.

8. The system of claim 5, wherein the digital geographic location query message transmitted from the personal communication device contains the following components: a bit string identifying the personal communication device transmitting the message; a bit string identifying the message as a digital geographic location query message and a bit string indicating the specific nature of the request; and wherein the digital geographic location query message transmitted from the personal communication is received by a base station and passed along to a mobile exchange along with a further bit string that identifies the base station.

9. The system of claim 5, further comprising a merchant information database containing information pertaining to a plurality of participating merchants located within the geographic territory covered by the cellular communication network, each of the merchants having a merchant ID; and means for determining the merchant ID of all participating merchants located within a predetermined geographic proximity of each of the base stations and wherein the system can retrieve information pertaining to specific participating merchants from the merchant information database and transmit this information to participating users.

10. The system of claim 5, wherein each base station has a base station ID; and the participating merchants are classified into a plurality of classes and the system can search for merchants by class wherein a base station receiving a digital geographic location query message, passes the digital geographic location query message along with the base station ID to a computer that identifies merchants, if

any, that satisfy the query and are located near personal communication device that transmitted the digital geographic location query message and a computer for retrieving information from the merchant information database and transmitting information retrieved from the merchant database to the personal communication

5   device that transmitted the personal communication device for display on the display of the personal communication device that transmitted the personal communication device.

11.   The system of claim 5, wherein merchant information is stored on a database that is accessible by merchants so that merchants can add, delete or alter

10   information contained in their respective listings.

12.   The system of claim 5, wherein the personal digital communication devices includes the following features: a scroll button to allow the user to scroll through menus and sub-menus; a button that dials a number displayed on the display; a power key to turn the device on or off; a plurality of softkeys whose current function

15   is displayed on the display proximate the key; an end button, which is pushed to end a communication session; a 12 key array of alphanumeric keys ranging from 1-0 and including * and #.

13.   The system of claim 5, wherein a plurality of the personal digital communication devices has a sponsor merchant associated therewith and includes a

20   button for transmitting a predetermined digital geographic location query message concerning sponsor merchant locations.

14.   The system of claim 5, wherein the personal communication device includes memory for storing information used in conducting an incentive program for encouraging certain participant actions, the incentive program comprising:

25   a plurality of participants, each participant having an ID and a redemption rate;

a first reward program under which participants may earn rewards for certain actions;

a second reward program through which a participant's redemption rate is adjusted in response to certain participant action, the incentive program being

5   conducted according to a process comprising the following steps

receiving the customer ID and points to be redeemed,

retrieving a customer redemption rate;

multiplying the base points by the redemption rate to arrive at a reward points amount and outputting the result.

10   15.   A computer implemented incentive program for encouraging certain participant actions, the program comprising:

a plurality of participants;

a participant ID associated with each participant;

a redemption rate associated with each participant ID;

15   a first reward program under which participants may earn points for certain actions;

a second reward program through which the redemption rate associated with a particular participant is adjusted in response to certain participant action.

20   16.   The computer implemented incentive program of Claim 15, wherein the program is implemented with a system that includes: a participant action reporting unit, a participant ID Input unit; a data storage and memory unit; a redemption unit; an incentive adjustment unit and a computation unit.

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17. The computer implemented incentive program of Claim 15, wherein at least some of the participant redemption rates are non-whole number values.

18. The computer implemented incentive program of Claim 15, wherein a base redemption rate is associated with each participant and the base redemption rate is not the same for all participants and at least some of the base redemption rates are non-whole number values.

19. The computer implemented incentive program of Claim 15, wherein the first reward program is a rebate program under which participants earn points for certain purchases and the second reward program is a variable redemption rate program through which the cash value redemption rate associated with a particular participant is adjusted in response to certain participant action.

20. The computer implemented incentive program of Claim 15, applied to a casino game such that the plurality of participants are the players; the players' participant ID is determined by the location of the machine or associated with each participant; the casino game is a first reward program under which participants may earn points that may be redeemed for cash or prizes and the second reward program is a variable redemption rate program through which points may be redeemed for currency based upon the redemption rate in effect at the time of redemption and wherein the redemption rate associated with a particular participant is adjusted in response to certain participant action.

21. The computer implemented incentive program applied to casino gaming of Claim 20, wherein to encourage the player to play frequently and improves utilization of the underlying casino game, the system includes a timer that determines whether a predetermined time period has elapsed between consecutive play of the casino game and wherein:

if the player has a positive credit winnings balance, the exchange rate is increased by predetermined amount every time the player plays within the predetermined time period;

if the player has a negative credit winnings balance then the exchange rate is decreased by predetermined amount every time the player plays within the predetermined time period;

if the player has a positive credit winnings balance, the exchange rate is decreased by predetermined amount whenever the predetermined time period interval has passed without the player playing; and

if the player has a negative credit winnings balance then the exchange rate is increased by predetermined amount whenever the predetermined time period interval has passed without the player playing.

22.   The computer implemented incentive program applied to casino gaming of Claim 20, wherein the variable redemption rate is used to provide an auxiliary game pursuant to which a player that has a net positive balance can place an auxiliary bet that, if won, results in increasing the redemption value of the positive balance at the risk of dramatically reducing the value of the positive balance.; and pursuant to which a player that has a negative balance can place an auxiliary bet that if won reduces the redemption value of the negative balance would be reduced at the risk of increasing the redemption value of the negative balance.

23.   The computer implemented incentive program applied to casino gaming of Claim 20, further comprising a display screen for displaying information concerning the amount of dollars on deposit, the net results, the current redemption rate, the dollar value of the net results determined by applying the current exchange rate and the current balance and a visual display to graphically illustrate the time remaining.

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